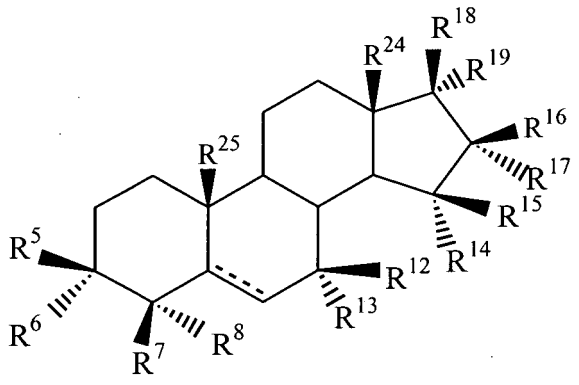
AMENDMENTS TO THE CLAIMS

This listing of claims replaces any prior version of the claims in the application.

Claims 1-32 (cancelled).

33 (withdrawn): A pharmaceutical composition comprising at least one compound of the following structure



wherein R^5 and R^6 are each independently selected from the group consisting of $OC(O)OCH_3$, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer, provided that at least one of R^7 and R^8 are $OC(O)OCH_3$;

wherein R^7, R^8, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18} and R^{19} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether,

an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^7 and R^8 together, R^{12} and R^{13} together, R^{14} and R^{15} together, R^{16} and R^{17} together, and R^{18} and R^{19} together independently form a double bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one each of R^{12} and R^{13} or R^{18} and R^{19} can independently be H;

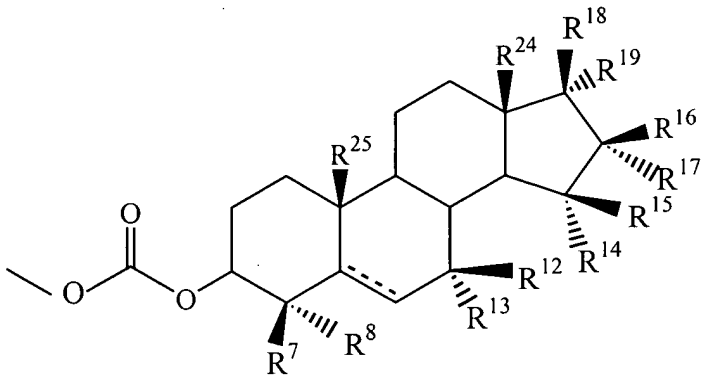
wherein R^{24} and R^{25} are either H or CH_3;

wherein the dotted line is an optional double bond;

wherein the $OC(O)OCH_3$ at the 3 position is in either the α or β configuration;

and a pharmaceutically acceptable excipient.

34 (withdrawn): The pharmaceutical composition of claim 33, wherein said at least one compound has the following structure



wherein R^7, R^8, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18} and R^{19} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally

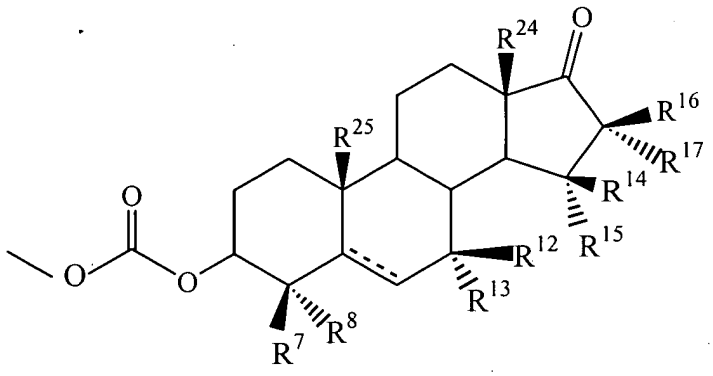
substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^7 and R^8 together, R^{12} and R^{13} together, R^{14} and R^{15} together, R^{16} and R^{17} together, and R^{18} and R^{19} together independently form a double bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one each of R^{12} and R^{13} or R^{18} and R^{19} can independently be H;

wherein R^{24} and R^{25} are either H or CH_3;

wherein the dotted line is an optional double bond;

wherein the $OC(O)OCH_3$ at the 3 position is in either the α or β configuration; and a pharmaceutically acceptable excipient.

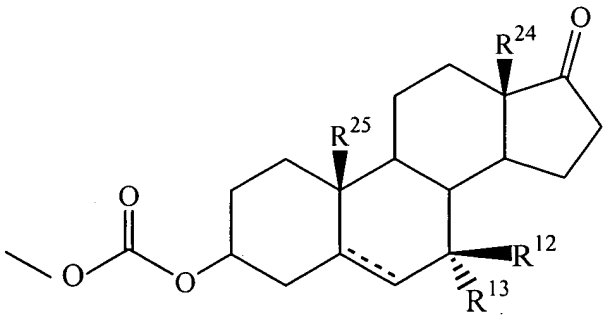
35 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure



wherein R^7, R^8, R^{12}, R^{13}, R^{14}, R^{15}, R^{16} and R^{17} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle,

an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^7 and R^8 together, R^{12} and R^{13} together, R^{14} and R^{15} together, and R^{16} and R^{17} together independently form a double bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one of each of R^{12} and R^{13} can independently be H;
wherein R^{24} and R^{25} are either H or CH_3;
wherein the dotted line is an optional double bond;
wherein the $OC(O)OCH_3$ at the 3 position is in either the α or β configuration;
and a pharmaceutically acceptable excipient.

36 (withdrawn): The pharmaceutical composition of claim 35, wherein said at least one compound has the following structure



wherein R^{12} and R^{13} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^{12} and R^{13} together form a double

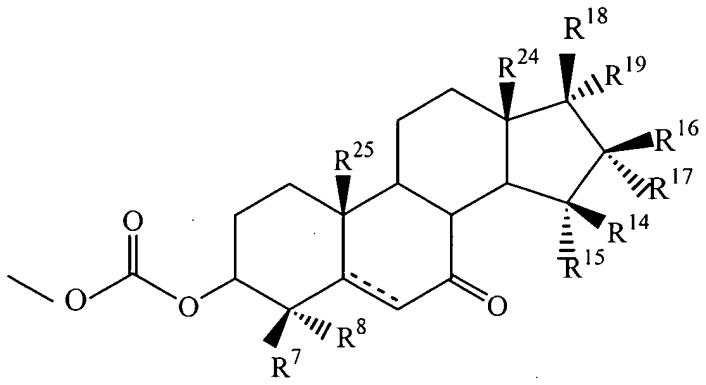
bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one of R^{12} and R^{13} is H;

wherein R^{24} and R^{25} are either H or CH_3;

wherein the dotted line is an optional double bond;

wherein the $OC(O)OCH_3$ at the 3 position is in either the α or β configuration; and a pharmaceutically acceptable excipient.

37 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure



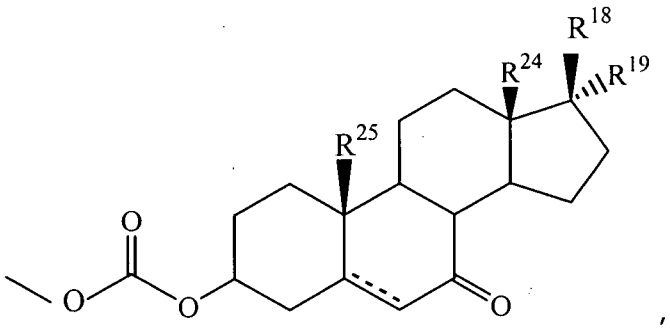
wherein R^7, R^8, R^{14}, R^{15}, R^{16}, R^{17}, R^{18} and R^{19} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^7 and R^8 together, R^{14} and R^{15} together, R^{16} and R^{17} together, and R^{18} and R^{19} together independently form a double bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one of each of R^{18} and R^{19} can be H;

wherein R^{24} and R^{25} are either H or CH_3;

wherein the dotted line is an optional double bond;

wherein the $OC(O)OCH_3$ at the 3 position is in either the α or β configuration; and a pharmaceutically acceptable excipient.

38 (withdrawn): The pharmaceutical composition of claim 37, wherein said at least one compound has the following structure



,

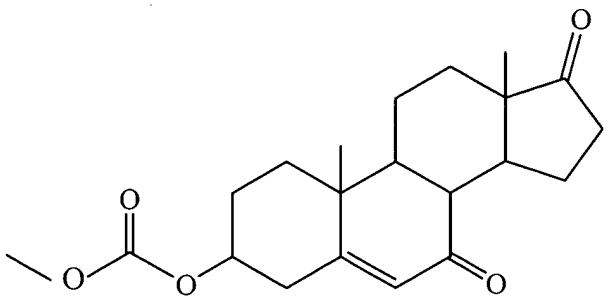
wherein R^{18} and R^{19} are each independently selected from the group consisting of -H, -OH, -SH, $-NH_2$,$-OSO_3H$, $-OPO_3H$, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and R^{18} and R^{19} together form a double bond to a moiety selected from the group consisting of =O, =S, $=CH_2$ and =NOH, provided that only one of R^{18} and R^{19} is -H;

wherein R^{24} and R^{25} are either H or CH_3;

wherein the dotted line is an optional double bond;

wherein the $-OC(O)OCH_3$ at the 3 position is in either the α or β configuration; and a pharmaceutically acceptable excipient.

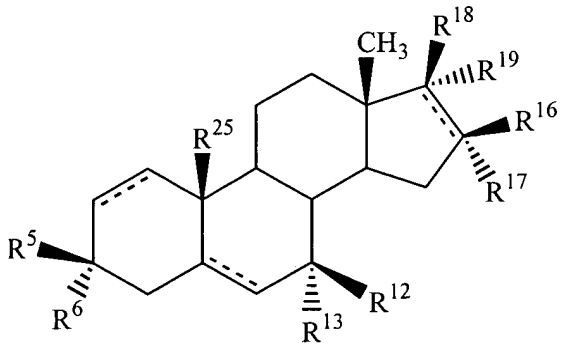
39 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure



and a pharmaceutically acceptable excipient.

Claims 40-55 (cancelled).

Claim 56 (currently amended): A method to treat androgen responsive prostate cancer or androgen responsive benign prostatic hyperplasia in a subject, or to ameliorate one or more symptoms thereof, comprising administering to the subject, or delivering to the subject's tissues an effective amount of a compound having the structure



wherein,

R^5 and R^6 independently are -H, a carbonate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide or an oligosaccharide, provided that R^5 or R^6 is a carbonate;

R^{12}, R^{13}, R^{16} and R^{17} together or each independently are -H, $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, $-OSO_3H$, $-OPO_3H$, =O, =S, $=CH_2$, =NOH, an ester, an amide, an

amino acid, a peptide, an ether, a thioether, an acyl group, a carbonate, a carbamate, a slufonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted alkynyl group; and

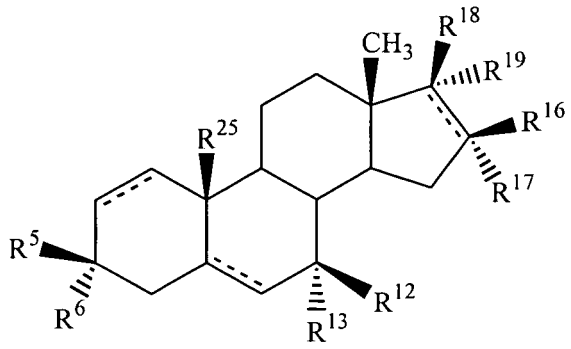
R^{18} and R^{19} together or each independently are -H, $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, =O, =S, $=CH_2$, =NOH, an ester, -NH-C(O)-C1-50 organic moiety, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide, an oligosaccharide or a polymer, provided R^{18} or R^{19} is $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, =O, =S, =NOH, an ester, -NH-C(O)-C1-50 organic moiety, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, a monosaccharide ~~or an oligosaccharide,;~~ or an oligosaccharide; ~~and~~

R^{25} is -H or optionally substituted ~~alkyl.~~ alkyl; and

R^{PR} independently are -H or a protecting group.

Claim 57 (previously presented): The method of claim 56, wherein the androgen responsive disease is androgen responsive prostate cancer.

Claim 58 (previously presented): The method of claim 57 wherein the compound has the structure



Claim 59. (previously presented): The method of claim 58 wherein

(a) R^{18} is -OH, -O-C(O)-CH_3 or -O-C(O)-CH_2CH_3 and R^{19} is -H, -C≡CH or -C≡CCH_3, or R^{18} and R^{19} together are =O, =S or =NOH, or

(b) R^{18} is -H, -C≡CH or -C≡CCH_3 and R^{19} is -OH, -O-C(O)-CH_3, -O-C(O)-CH_2CH_3.

Claim 60 (canceled).

Claim 61 (previously presented): The method of claim 59 wherein R^{12} and R^{13} independently or together are -H, -OH, -SH, -NH_2, =CH_2, =$CHCH_3$, =NOH, =NOC(O)CH_3, =O or =S.

Claim 62 (canceled).

Claim 63 (previously presented): The method of claim 59 wherein R^{16} and R^{17} independently or together are -H, -OH, -SH, =O, =S, -O-C(O)-CH_3 or -O-C(O)-OCH_3.

Claim 64 (previously presented): The method of claim 59 wherein R^5 or R^6 is -H, -CCH_3, -CH_3 or -C_2H_5.

Claim 65 (previously presented): The method of claim 64 wherein R^{25} is -H, -CH_3, -CH_2OH, -$CH_2OC(O)CH_3$, -$OC(O)CH_3$ or -$CH_2OC(O)OCH_3$.

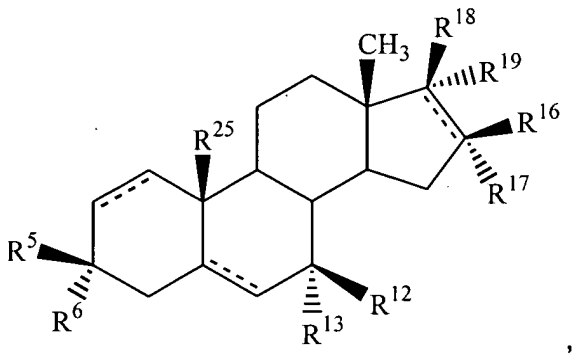
Claim 66 (canceled).

Claim 67 (previously presented): The method of claim 65 wherein R^{25} is -CH_3.

Claim 68 (previously presented): The method of claim 67 wherein a double bond is present at the 1-2 and 5-6 positions.

Claim 69 (previously presented): The method of claim 67 wherein a double bond is present at the 5-6 position.

Claim 70 (new): A pharmaceutical formulation comprising one or more excipients and a compound having the structure



wherein,

R^5 and R^6 independently are -H, a carbonate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide or an oligosaccharide, provided that R^5 or R^6 is a carbonate;

R^{12}, R^{13}, R^{16} and R^{17} together or each independently are -H, $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, $-OSO_3H$, $-OPO_3H$, =O, =S, $=CH_2$, =NOH, an ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a carbonate, a carbamate, a slufonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted alkynyl group; and

R^{18} and R^{19} together or each independently are -H, $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, =O, =S, $=CH_2$, =NOH, an ester, -NH-C(O)-C1-50 organic moiety, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide, an oligosaccharide or a polymer, provided R^{18} or R^{19} is $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, =O, =S, =NOH, an ester,

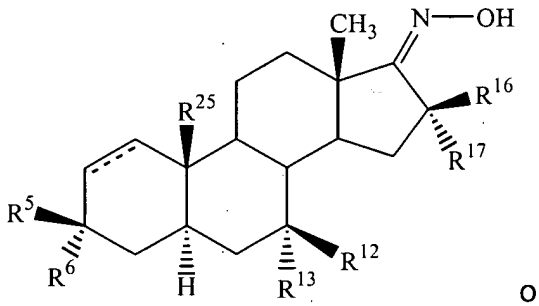
-NH-C(O)-C1-50 organic moiety, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, a monosaccharide or an oligosaccharide;

R^{25} is -H or optionally substituted alkyl; and

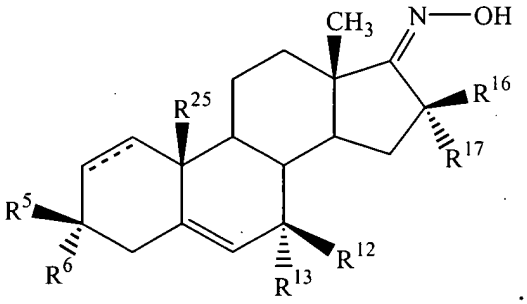
R^{PR} independently are -H or a protecting group.

71. (new): The formulation of claim 70 wherein R^{18} and R^{19} are =NOH.

72. (new): The formulation of claim 71 wherein the compound has the structure



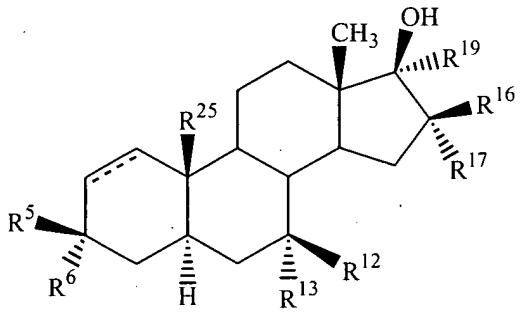
or



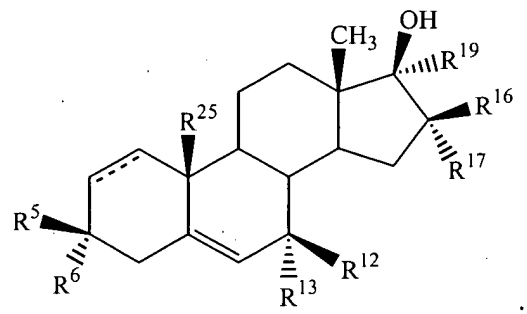
73 (new): The formulation of claim 72 wherein R^6 is a carbonate.

74 (new): The formulation of claim 70 wherein R^{18} is -OH and R^{19} is -H, -CCH or $-CCCH_3$.

75 (new): The formulation of claim 74 wherein the compound has the structure



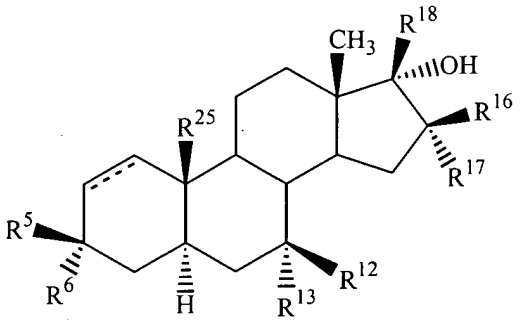
or



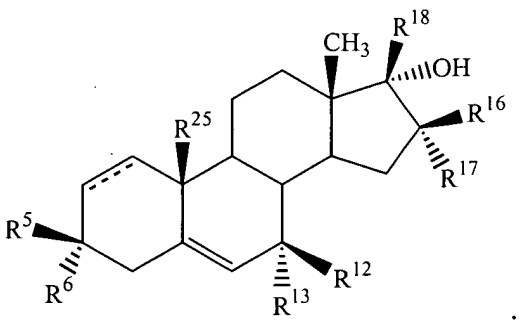
76 (new): The formulation of claim 74 wherein R^6 is a carbonate.

77 (new): The formulation of claim 70 wherein R^{19} is -OH and R^{18} is -H, -CCH or $-CCCH_3$.

78 (new): The formulation of claim 77 wherein the compound has the structure



or



79 (new): The formulation of claim 78 wherein R^6 is a carbonate.